

<b>Notice of References Cited</b>		Application/Control No.	Applicant(s)/Patent Under Reexamination LEE, SE-JIN	
		08/966,233	Examiner	Art Unit 1631
		Marianne P. Allen		Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
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	K	US-			
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**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
*	U	Akhurst et al., Progress in Growth Factor Research, Volume 2, pages 153-168, 1990.
*	V	Rankin et al., Nature Genetics, Volume 24, pages 262-265, March 2000.
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

### EXAMINER'S COMMENTS

It is noted that the corrected Appeal Brief was filed 5/14/03.

Appellant's brief presents arguments with respect to Akhurst et al. As set forth in the prior Office action, appellant has provided only the abstract to the examiner. Neither the abstract nor the full reference have been made of record by appellant. As such, the examiner provides the full reference for appellant and makes the reference of record. The reference discloses information about TGF- $\beta$ 1, TGF- $\beta$ 2, and TGF- $\beta$ 3 in mammalian embryogenesis. Akhurst et al. also discusses the wide variety of activities found in the larger TGF- $\beta$  superfamily. Page 155 states, "As yet there is no definitive evidence that any of the TGF $\beta$ s are endogenous regulators of mammalian embryonic processes." It is emphasized by the examiner that what is under discussion here is TGF- $\beta$  itself and not the larger superfamily. Thus, this reference provides no evidence with respect to the proteins of the larger superfamily and their role in mammalian embryogenesis. Appellant is reminded that the protein disclosed to have the highest homology to GDF-1 was not TGF- $\beta$ 1, TGF- $\beta$ 2, or TGF- $\beta$ 3, but rather Vg-1 which is from amphibians and not mammals. The totality of Akhurst et al. fairly indicates that those of skill in the art at the time of the invention were experimenting and looking to see whether TGF- $\beta$ 1, TGF- $\beta$ 2, and TGF- $\beta$ 3 proteins were involved in mammalian embryogenesis and how. The conclusion and prospects section of the reference on pages 164-165 states that the evidence would suggest that each isoform of TGF- $\beta$  (i.e. TGF- $\beta$ 1, TGF- $\beta$ 2, and TGF- $\beta$ 3) has a distinct function *in vivo*. The reference states, "To test this proposition, it is essential that more functional studies are carried out." This supports the examiner's position that further research would be required to reasonably determine or confirm any activity or involvement of GDF-1 in embryogenesis. Furthermore, the reference amply illustrates that embryogenesis is a highly diverse and complex process including skeletal development, hematopoiesis, vascularization, and so forth. (See pages 157-164.) This is also acknowledged by the specification as filed on page 2, lines 15-20. As such, a disclosure that GDF-1 may be involved in embryogenesis cannot be considered to convey to those of ordinary skill in the art any specific or clear biological activity. It provides no direction or guidance as to which aspect or to a particular activity.

In addition, appellant's brief presents arguments with respect to Rankin et al. The reference was not made of record by appellant. As such, the examiner also includes this reference on the PTO-892. A copy was provided by appellant previously.